

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Myron Wyche on February 26, 2009.

The application has been amended as follows:

Claim 1 has been amended as follows:

- - 1. (Currently amended) A method of transforming a motion in a volume screw machine, said machine having at least two sets of conjugated elements (80, 70; 60, 50), each of the sets further comprising:

a first element (80, 60) having an inner screw surface (180, 160) centered around a first axis  $[f]$  passing through center O  $[j]$ ; and

a second element (70, 50) having an outer screw surface (270, 250) centered around a second axis  $[f]$  passing through centers  $Om_2, Om_1 [j]$  of the respective set of conjugate elements,

wherein the first element has a symmetry order  $n_f=3$  and the second element has symmetry order  $n_m=2$ ,

wherein an inner set (50, 60) of the conjugated elements is placed coaxially in at least one cavity of the second element of an outer set (80, 70) of conjugated elements,

wherein the first and second axes  $\{f\}$  passing through the centers  $O$ ,  $\{i\}$   $Om_1$ , and  $Om_2$   $\{j\}$  are parallel and distances  $E_1$  and  $E_2$ , from the respective  $\{j\}$  second axes, ~~and~~ are offset in opposite directions relative to the center  $O$ ,

wherein at least one of said first and second elements of each set is rotatable about its axis, said method comprising:

creating a rotary motion of at least one element in each of the sets. - -

Claim 4 has been amended as follows:

- - 4. (Currently amended) The method of claim 1, wherein

said first axes of each set of conjugated elements coincide, whereas the second axes are non-coinciding, or that said second axes of each set of conjugated elements coincide whereas the first axes are non-coinciding, and that the non-coinciding axes  $\{f\}$  passing through the centers  $Om_1$ ,  $Om_2$   $\{j\}$  are rotated in such a manner about the coinciding axes  $\{f\}$  passing through the center ~~entre~~  $O$   $\{j\}$  as to maintain the distance relationship of the non-coinciding axes  $\{f\}$  passing through the centers  $Om_1$ ,  $Om_2$   $\{j\}$  with regard to each other and with regard to the coinciding axes  $\{f\}$  passing through the center  $O$   $\{j\}$ . - -

Claim 14 has been amended as follows:

- - 14. (Currently Amended) A method of transforming a motion in a volume screw machine, said machine having at least two sets of conjugated elements, each set comprising:

a first element having an inner screw surface centered around a first axis  $\{f\}$  passing through center  $O$   $\{j\}$ ; and

a second element having an outer screw surface centered around a second axis  $[i]$  passing through centers  $Om_2$ ,  $Om_1$   $[j]$  of the respective set of conjugate elements,

wherein the first element has a symmetry order  $n_i=3$  and the second element has symmetry order  $n_m=2$ ,

wherein an inner set of the conjugated elements is placed coaxially in at least one cavity of the second element of an outer set conjugated elements,

wherein the first and second axes  $[i]$  passing through the centers O,  $[i]$   $Om_1$ , and  $Om_2$   $[j]$  are parallel and distances E 1 and E2, from the respective  $[j]$  second axes, and are offset in opposite directions relative to the center O,

wherein at least one of said elements of each set is rotatable about its axis, said method comprising:

creating a rotary motion of at least one element in each set of conjugated elements, each set further comprising an element centered about an axis which coincides with a principal axis of the machine, the respective second element of each set being centered about an axis which is not coinciding with the principal axis, and the non-coinciding axis being rotated in such a manner about the principal axis as to maintain the distance relationship of the non-coinciding axes with regard to each other and with regard to the principal axis. - -

### **Communication**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARY A. DAVIS whose telephone number is (571)272-

9965. The examiner can normally be reached on Monday thru Thursday, 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E. Denion/  
Supervisory Patent Examiner, Art Unit 3748

/Mary A Davis/  
Examiner, Art Unit 3748